

B I L L O F L A D I N G

No: PEC 785760

Ship From:
THYSSENKRUPP MATERIALS NA
2821 LANGSTAFF ROAD
CONCORD, ONTARIO L4K 5C6
Tel: 905 669 9444 Fax: 9057389033

Ship Date 17Sep12 at 13:10 From PFW
Probill

Via VIM TRANSFER

FOB CONCORD

Frt PREPAID

Route 0-1-0 Manifest

Vhcle Trailer

Slp STAN IVERS (905-532-1350)

Sold To: (20115)

DART AEROSPACE

1270 ABERDEEN ST

HAWKESBURY, ON K6A 1K7

Ship To: (1)
DART AEROSPACE
1270 ABERDEEN ST
HAWKESBURY, ON K6A 1K7
Tel: 613-632-9577 Fax: 613-632-1053

B I L L O F L A D I N G

1) Our Order PEC-484545- 1 Your PO # 17463
Part # ASTM A 240 Rel #

STAINLESS STEEL PLATE 304L
.50" THICK X 2.5000" X 144.0000"

Heat Number D4N6 Tag No 104507

Quantity 5.00 SFT

PCS 2

Wt LBS 105

MTR'S

2) Our Order PEC-484545- 2 Your PO # 17463
Part # ASTM A 240 Rel #

STAINLESS STEEL PLATE 304L
.625" THICK X 3.0000" X 120.0000"

Heat Number 978016 Tag No 536339

Quantity 2.50 SFT

PCS 1

Wt LBS 64

MTR'S

3) Our Order PEC-484545- 3 Your PO # 17463
ALUMINUM SHEET 6061 T6

.0320 Nom X 48.0000" X 144.0000"

Heat Number 597506A5 Tag No 104490

Quantity 96.00 SFT

PCS 2

Wt LBS 43

MTR'S

TOTAL: Tags 3 PCS 5 LBS 212

4845115

MILL TEST REPORTS, PACKING SLIPS ARE TO SENT WITH
MATERIAL AND FAXED TO THE CUSTOMER PRIOR
TO SHIPPING.

ATTN: CHANTAL/LINDA

** ALL PACKING SLIPS MUST HAVE THE HEAT NUMBER **

Page: 1Continued

11/10/12 R-121
P. Planchin
R-558
1-tub-R-400-B

TOUTES ERREURS ET/OU MARCHANDISES MANQUANTES DOIVENT ÊTRE
RAPPORTÉES IMMÉDIATEMENT.

ERRORS OR SHORTAGE MUST BE REPORTED IMMEDIATELY

RETOUR DE MARCHANDISES AVEC NOTRE NUMERO D'APPROBATION SEULEMENT.
MERCHANDISE MAY NOT BE RETURNED WITHOUT OUR APPROVAL NUMBER.

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Sold To: (20115)
DART AEROSPACE

Ship To: (1)
DART AEROSPACE

B I L L O F L A D I N G

** REFERENCED ON IT **

TOTAL 1 BDL 1 TUBE 1 SKID G.W 341 LBS

*CUSTOMER PICK-UP HRS AT THYSSENKRUPP MATERIALS NA
CONCORD, ONT.* *** 9:00 AM TO 4:00 PM ***
**** TEL. 800-926-2600 ****

* WE STOCK STAINLESS STEEL *

* PLEASE LET US QUOTE YOUR NEXT REQUIREMENT *

***PLEASE NOTE A \$25.00 ENERGY SURCHARGE WILL BE
ADDED TO EVERY ORDER.***

THYSSENKRUPP MATERIALS NA WILL CONDUCT THEIR
INVENTORY, SEPT. 13 & 14/2012. THERE WILL BE NO
CUSTOMER PICKUPS THOSE DAYS. HOWEVER, THE SALES
OFFICE WILL REMAIN OPEN.

Page: 2 Last

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MERCHANDISE MAY NOT BE RETURNED WITHOUT OUR APPROVAL NUMBER.

REÇU EN BONNE CONDITIONS / RECEIVED IN GOOD CONDITION

DATE

TVQ/QST# 1017327981 TQ001 TPS/GST TVH/HST # 140223934 RT0001

Handwritten notes:
HL 10 crate R-121
F1 1000
R-558 R-4
1-100

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Ship From: THYSSENKRUPP MATERIALS NA
2821 LANGSTAFF ROAD
CONCORD, ONTARIO L4K 5C6
Tel: 905 669 9444 Fax: 9057389033

Ship Date 17Sep12 at 13:10 From PFW
Probill
Via VIM TRANSFER
FOB CONCORD
Frt PREPAID
Route 0- 0 Manifest
Vhcle Trailer
Slp STAN IVERS (905-532-1350)
Sold To: (20115)
DART AEROSPACE

Ship To: (1)
DART AEROSPACE

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REÇU EN BONNE CONDITIONS / RECEIVED IN GOOD CONDITION

TVQ/QST# 1017327981 TQ001 TPS/GST TVH/HST # 140223934 RT0001

DATE

METALLURGICAL TEST REPORT

6870 Highway 42 East
Ghent, KY 41045-9615
(502) 347-6000

Certificate: 763595 01
Customer: 0925 057
Mail To:
COPPER AND BRASS SALES, INC.
C/O CBS ELKHART
1015 JEROME STREET
MISHAWAKA, IN 46544

Ship To:
COPPER AND BRASS SALES, INC.
C/O CBS ELKHART
1015 JEROME STREET
MISHAWAKA, IN 46544

Date: 8/21/2012 Page: 1

Steel: 304/304L

Finish: HRAP

Your Order: 5400151827

NAS Order: AN 0531312 01

Corrosion: ASTM A262/02aE;180Bend-OK

PRODUCT DESCRIPTION:

STAINLESS STEEL PLATE, HRAP; UNS 30400/30403
ASTM A240/11b, A480/11b, A666/10; ASME SA240/11a, SA480/11a, SA666/11a
CHEM ONLY ON FOLLOWING ASTM: A276/10, A479/11, A484/11, A312/11
CHEM ONLY ON FOLLOWING ASME: SA312/11, SA479/11
AMS 5511H/5513J XMRK; MIL-5059D AMD3(X CRN MEAS); MIL-4043B
NACE MR0175/ISO 15156-3:2003 A, MR0103/07; QQS766D-A X MAG PERM
MIN. SOLUTION ANNEAL TEMP 1900F, WATER QUENCHED

REMARKS:

Mat'l is Free of Mercury Contamination. No weld repairs.
EN 10204:2004 3.1; RoHS Compliant
Material is Free of Radioactive Contamination
NAS Steel Making Process: EAF, AOD, & Cont. Casting
Product Mfg. by a Quality Mgt. Sys. in Conf. w/ISO 9001
*Melted & Manufactured in the USA; Mat'l is DFARS Compliant

Skid #	Prod #	Thickness	Width	Weight	-----Length-----	Mark	Pieces
PB7664	* 03D4N6	.5000	60.0000	1,245	PLATE	144.00	1

CHEMICAL ANALYSIS CM(Country of Melt) ES(Spain) US(United States) ZA(South Africa) JP(Japan) Chemical analysis per ASTM A751/08

HEAT	CM	C %	CR %	CU %	MN %	MO %	N %	NI %	P %	S %
D4N6	US	.0184	18.2045	.4325	1.7215	.3465	.0756	8.0105	.0305	.0010
SI %										
.3450										

MECHANICAL PROPERTIES

Skid #	Prod #	l d o i c r	UTS KSI	.2% YS KSI	ELONG %-2"	Hard RB	R of A %
PB7664	03D4N6	F T	87.99	43.35	61.45	84.00	73.62

NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS.

Technical
Dept. Mgr.

ERIC HESS

8/21/2012



CERTIFIED MATERIAL TEST REPORT

CERTIFICATE OF CONFORMANCE

Bill To: 9181704
COPPER & BRASS
P.O. BOX 5116
SOUTHFIELD MI USA

Ship To: 024
STAINLESS STEEL SERVICES
4330 SEPVIVA STREET
PHILADELPHIA PA

48033

19124

OUR ORDER NO. LP1429580
YOUR ORDER NO. 5400099900-R02
MEMO NO. 375044-00
CERT. DATE 04/29/2011
WHS-1 DUAL CERT

Tracy McFarland - Director, Corporate Quality Assurance

AL 304/304L HRAP
ASTM A240 10b ASME SA240 10 AMS 5511 H
AMS 5513 J
UNS S30400; UNS S30403;
ROHS COMPLIANT

h/3912
S

Heat	Matl ID	Slip	Sid	Lot No	Size(Inches)	Pcs	Weight (lb)
978016	05D	16131	A	244816	.6250 x 96.0000 x 240.0000	1	4262 PART# SSFLR01515
978016	07A	16134	A	244816	.6250 x 96.0000 x 240.0000	1	4262 PART# SSFLR01515

Heat	C	MN	P	S	SI	NI	CR	MO	CO	CU	N
978016	.018	1.44	.034	.0003	.42	8.04	18.34	.39	.22	.44	.087

Lot No	Gauge	Cond.	Cond. Test	Yield Strength	Tensile Strength	Elong %	Red. of Area %	Hardness	Bend	Corrosion	Grain Size
244816	.6250	TRANS	ANNEAL	39.3 KSI	87.0 KSI	60.0	77.0	BHN175	OK	OK	

MATERIAL WAS SOLUTION ANNEALED (HEAT TREATED) ABOVE 1900F AND WATER QUENCHED
MATERIAL WAS PRODUCED WITHOUT KNOWN CONTACT WITH MERCURY
MATERIAL IS OF USA MELT AND MANUFACTURE
MATERIAL WAS NOT WELD REPAIRED
DIN EN 10204:2005 3.1 CERTIFICATE

PAGE 1 FINAL PAGE

THIS CERTIFICATE OF TEST SHALL NOT BE REPRODUCED IN FULL WITHOUT THE WRITTEN APPROVAL OF THE COMPANY. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULANT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW. TESTING WAS PERFORMED AT ALC NADCAP AND ISO/IEC 17025 APPROVED LABORATORIES LOCATED AT NATRONA HEIGHTS, BRACKENRIDGE, LATROBE, MIDLAND AND LEECHBURG, PA FACILITIES OR A NADCAP AND ISO/IEC 17025 ACCREDITED LABORATORY. EN 10204 - 3.1 ALLEGHENY LUDLUM IS APPROVED AS MANUFACTURER ACCORDING TO AD-MERKBLATT WO/TRD 100 AND THE PRESSURE EQUIPMENT DIRECTIVE PED 97/23/EC.

ALLEGHENY LUDLUM PERFORMS CHEMICAL ANALYSIS BY THE FOLLOWING TECHNIQUES: C, S BY COMBUSTION/INFRARED. N, O, H BY INERT FUSION/THERMAL CONDUCTIVITY. MN, P, SI, CR, NI, MO, CU, CB, CO, V BY WDXRF. B BY OES. AL AND TI (>= 0.10%). BY WDXRF, OTHERWISE BY OES. PB, BI, AG BY GFAA.

CERTIFICATE OF TEST & CHEMISTRY STATEMENTS EXCEPT AS OTHERWISE NOTED, MATERIAL WAS MANUFACTURED AND TESTED IN ACCORDANCE WITH THE LISTED SPECIFICATIONS AND RESULTS CONFORM TO SPECIFICATION/ORDER REQUIREMENTS.

DELIVERY 2409054695
PCSD
POW
DEC-291645
QC APR 29

3

SHIP TO: COPPER & BRASS SALES 905 CARLOW DRIVE UNIT D BOLINGBROOK, IL 60490
SOLD TO: COPPER & BRASS SALES ATTN: ACCOUNTS PAYABLE P.O. Box 5116 SOUTHFIELD, MI 48086

**KAISER
ALUMINUM**
Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number
4271171

CUSTOMER PO NUMBER: 5400137418	WORK PACKAGE:	CUSTOMER PART NUMBER: ALFLR01643	SHIP RUN/LOAD: 102381/8	GOVT CONTRACT NUMBER:		
KAISER ORDER NO: 1133911	LINE ITEM: 1	SHIP DATE: 31-JUL-2012	ALLOY: 8081	CLAD: BARE	TEMPER: T6	PRODUCT DESCRIPTION: HT Flat Sheet
WEIGHT SHIPPED: 8199 LB	QUANTITY: 374 PCS EST.	TRUCK B/L #: 2038165	GAUGE: 0.0320 IN (0.8128 MM)	DIAMETER/WIDTH: 48.000 IN (1219.2 MM)	LENGTH: 144.000 IN (3657.6 MM)	

MHU 1598055: LOT 597229A4: 24 pieces;
MHU 1600032: LOT 597506A5: 175 pieces;
MHU 1600035: LOT 597506A5: 175 pieces;

Certified Specifications

AMS 4027/RevN

ASME SB 209/Rev2004

ASTM B 209/Rev10

Test Code: 1511

Test Results

Lot: 597229A4 Cast 862

Drop 22

Ingot 3

Melted in USA

(ASTM B8/B557)
(EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T6	LT / 2 (Min:Max)	47.0 : 47.4 (324 : 327)	39.4 : 40.5 (272 : 279)	13.3 : 14.0

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual(wt%)	0.73	0.6	0.31	0.07	1.0	0.18	0.09	0.02	0.02	0.00	TOT 0.04

S
12/01/12
West
Proc

From: Copper and Brass Sales

Cust: THYSSENKRUPP MATERIALS NA - ECAD Del: 2402032969

Part: PO: PEC - 241645

Wgt: 43.352 LB Date: 08/28/2012

James K Baber

KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number
4271171

Lot: 597506A5 Cast 867 Drop 20 Ingot 2 Melted in: USA

(ASTM E8/B557)
(EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T6	LT / 2 (Min:Max)	44.7 : 45.5 (308 : 314)	39.0 : 39.6 (269 : 273)	11.5 : 12.5

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual(wt%)	0.68	0.5	0.31	0.08	1.0	0.19	0.17	0.03	0.01	0.00	TOT 0.04

ALLOY LIMITS

	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
6061												
MIN(wt%)	0.40	0.0	0.15	0.00	0.8	0.04	0.00	0.00	0.00	0.00	EACH	0.05
MAX(wt%)	0.8	0.7	0.40	0.15	1.2	0.35	0.25	0.15	0.05	0.05	TOT	0.15

Aluminum Remainder

TEST NOTES

6061 sheet or plate certified to AMS 4025, ~~AMS 4026~~, or AMS
4027 also meets applicable requirements of AMS-QQ-A-250/11,
Rev. A.

Sc 10/21

CERTIFICATION

Kaiser Aluminum Fabricated Products, LLC (Kaiser) hereby certifies that metal shipped under this order was melted in the United States of America or a qualifying country per DFARS 225.872-1(a), was manufactured in the United States of America, and meets the requirements of DFARS 252.225 for domestic content. This material has been inspected, tested and found in conformance with the requirements of the applicable specifications as indicated herein. For material thicknesses outside specification limits, mechanical properties are as shown herein and chemical composition meets specification requirements. All metal which is solution heat treated complies with AMS 2772. Any warranty is limited to that shown on Kaiser's standard general terms and conditions of sale. Test reports are on file, subject to examination. Test reports shall not be reproduced except in full, without the written approval of Kaiser Aluminum Fabricated Products, LLC laboratory. The recording of false, fictitious or fraudulent statements or entries on the certificate may be punished as a felony under federal law. ISO-9001:2000 certified.

James Hemenway

JAMES HEMENWAY, LABORATORIES SUPERVISOR

Page 2 of 2

From: Copper and Brass Sales

Cust: THYSSENKRUPP MATERIALS NA - ECAD Del: 2402032969

Part: PO: PEC - 241645

Wgt: 43.352 LB Date: 08/28/2012

James K Baber

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577

OUTSTANDING PO REPRINT

Purchase Order ID PO17463

Purchase Order Date 7/17/12

PO Print Date 9/19/12

Page Number 1 of 2

Order From : VC-COP001
THYSSENKRUPP MATERIALS CA LTD
O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL"A"
TORONTO, ON M5W 5V8
CA

Contact Name		Buyer	Chantal Lavoie
Vendor Phone	905 669 9444	Requisition Nbr	
Vendor Fax	905 738 9033	Tax Resale Nbr	10127-2607
Vendor Account Nbr		Terms	Net 30
		Currency	CAD
		FOB	Destination-Collect

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req Qty	Unit Price	Extended Price
Ship To :	DART AEROSPACE LTD	1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CANADA				

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req. Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
20	M304B0.500X2.500 030	304 BAR .500 x 2.50	7/23/12 Yes	24.00 f	Yours ppd	\$12.9083	\$309.80

Special Inst: AISI 304/316 SS BAR OR AISI 304/316
SS PLATE
AS PER ASTM A276 OR ASTM A240

Line Total: \$309.80

(NOTE: AISI 303 NOT
ACCEPTABLE)

21	M304B0.625X3.000 030	304 BAR .625 X 3.00	7/23/12 Yes	12.00 f	Yours ppd	\$20.2500	\$243.00
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10/4/12
MATERIAL CERTIFICATION
REQ'D UPON DELIVERY

9/19/12

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577

OUTSTANDING PO REPRINT

Purchase Order ID PO17463

Purchase Order Date 7/17/12

PO Print Date 9/19/12

Page Number 2 of 2

Order From : VC-COP001
THYSSENKRUPP MATERIALS CA LTD
O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL"A"
TORONTO, ON M5W 5V8
CA

Contact Name		Buyer	Chantal Lavoie
Vendor Phone	905 669 9444	Requisition Nbr	
Vendor Fax	905 738 9033	Tax Resale Nbr	10127-2607
Vendor Account Nbr		Terms	Net 30
		Currency	CAD
		FOB	Destination-Collect

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req Qty	Unit Price	Extended Price
		Special Inst:	AISI 304/316 SS BAR OR AISI 304/316 SS PLATE AS PER ASTM A276 OR ASTM A240 (NOTE: AISI 303 NOT ACCEPTABLE)		Line Total:	\$243.00
22	M6061T6S.032 021	6061-T6 Sheet 0.032"	7/23/12 Yes	96.00 sf	Yours ppd 2012/9/18	\$1.9792 \$190.00
		Special Inst:	MATERIAL: 6061-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/11 OR AMS-QQ-A- 250/11 OR AMS 4025 OR AMS 4027 OR ASTM B209		Line Total:	\$190.00
Outstanding PO Total:						\$742.80

Change Nbr: 4

Change Date: 9/19/12

CL

No substitution or deviation without
consent.
Certificate of Conformity or Material
Certification required ☒ YES ☐ NO